

## CLAIMS

1 A system for the control of occupancy of available bandwidth for data frames both received and transmitted by way of a port, said system comprising

5 a media access control device associated with the port,

means coupled to the media access control device for monitoring frame traffic passing through the port, and providing signals denoting for each frame the size of the frame and  
10 its direction relative to the port,

first and second counting buckets for determining whether said traffic is in profile or out of profile,

15 a transmit control responsive to a first command signal to prevent the supply of transmit frames to the media access control device and said port,

a receive control coupled to the media access control device and responsive to a second command signal to initiate the generation of flow control frames from the port,

20 and mode control means for controlling a relationship between the first and second counting buckets and said command signals, said mode control means defining a duplex mode wherein said token buckets separately control the first and second command signals and a half-duplex mode wherein a single one of said token buckets controls both  
25 said first and second command signals

2 A system according to claim 1 and comprising transmit storage space for storing frames destined for transmission from said port, the transmit control preventing the transfer of frames from the transmit storage to the port

30 3 A system according to claim 1 or 2 wherein the receive control initiates a pause frame to be transmitted from the port

4 A system for the control of occupancy of available bandwidth for data frames  
both received and transmitted by way of a port, said system comprising

5 a media access control device associated with the port,

means coupled to the media access control device for monitoring frame traffic passing  
through the port, and providing signals denoting the volumes of frame traffic to and from  
said port,

10 first and second token buckets responsive to said signals and to token signals and each  
including a threshold separating an in profile condition and an out of profile condition,

15 a transmit control responsive to a first command signal to prevent the supply of transmit  
frames to the media access control device and said port,

a receive control coupled to the media access control device and responsive to a second  
command signal to initiate the generation of flow control frames from the port,

20 and mode control means for controlling a relationship between the token buckets and  
said command signals, said mode control means defining a duplex mode wherein said  
token buckets separately control the first and second command signals and a half-duplex  
mode wherein a single one of said token buckets controls both said first and second  
command signals

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